

THE KENYA NATIONAL EXAMINATIONS COUNCIL
Kenya Certificate of Primary Education

507

- SCIENCE -



Oct. 2018 – 1 hour 40 minutes

INSTRUCTIONS TO CANDIDATES (Please read these instructions carefully)

1. You have been given this question booklet and a separate answer sheet. The question booklet contains 50 questions.
2. Do any necessary rough work in this booklet.
3. When you have chosen your answer, mark it on the **ANSWER SHEET**, not in this question booklet.

HOW TO USE THE ANSWER SHEET

4. Use an ordinary pencil only.
5. Confirm that the answer sheet that you have been provided with has the following:
YOUR INDEX NUMBER
YOUR NAME
NAME OF YOUR SCHOOL
6. Do not make any marks outside the boxes.
7. Keep the sheet as clean as possible and do not fold it.
8. For each of the questions 1–50 four answers are given. The answers are lettered A, B, C and D. In each case only **ONE** of the four answers is correct. Choose the correct answer.
9. On the answer sheet, show the correct answer by drawing a **dark line** inside the box in which the letter you have chosen is written.

Example:

In the Question Booklet.

4. Which one of the following components of blood is involved in clotting after injury?
A. Plasma
B. White blood cells
C. Red blood cells
D. Platelets.

The correct answer is D.

On the answer sheet:

4 [A] [B] [C] D 14 [A] [B] [C] [D] 24 [A] [B] [C] [D] 34 [A] [B] [C] [D] 44 [A] [B] [C] [D]

In the set of boxes numbered 4, the box with the letter D printed in it is marked.

10. Your **dark line MUST** be within the box.
11. For each question **ONLY ONE** box is to be marked in each set of four boxes.

This Question Paper consists of 7 printed pages and 1 blank page.

1. The form of energy that comes **second** during energy transformation in a torch which uses dry cells is

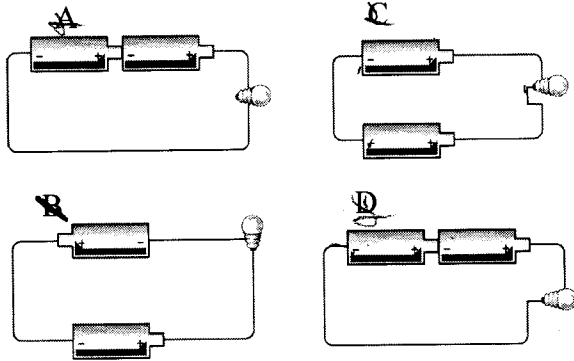
- A. light.
- B. electrical.
- C. chemical.
- D. heat.

2. When rays of light pass from air to water they

- A. bounce back.
- B. increase in size.
- C. are bent.
- D. are absorbed.

3. In which one of the circuits below would the bulb light?

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4. The purpose of each of the following is insulation against heat loss EXCEPT

- A. clay pots.
- B. wooden handle frying pan.
- C. woollen clothing.
- D. window curtains.

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5. A plane mirror is placed at the beginning of the word MALARIA. Which one of the following groups of letters will remain the same when the word is reflected?

- A. M, A, L.
- B. M, A, I.
- C. R, A, I.
- D. L, I, A.

6. Which one of the following pairs of materials are **correctly** matched with the heat transfer processes that take place in them?

	Convection	Radiation
A.	Water	Vacuum
<input checked="" type="checkbox"/> B.	Air	Iron rod
C.	Glass	Water
D.	Vacuum	Air

7. Which one of the following pairs of substances is **correctly** grouped according to its characteristics?

	Definite Volume	No Definite Shape
A.	Air <input checked="" type="checkbox"/>	Water
<input checked="" type="checkbox"/> B.	Stone	Kerosene
C.	Cooking oil	Wood
D.	Bottle <input checked="" type="checkbox"/>	Book

8. In an experiment on mixing of liquids, water, cooking oil, fresh milk and kerosene were mixed two at a time. Cooking oil mixed well with

- A. water and fresh milk.
- B. water only.
- C. fresh milk and kerosene.
- D. kerosene only.

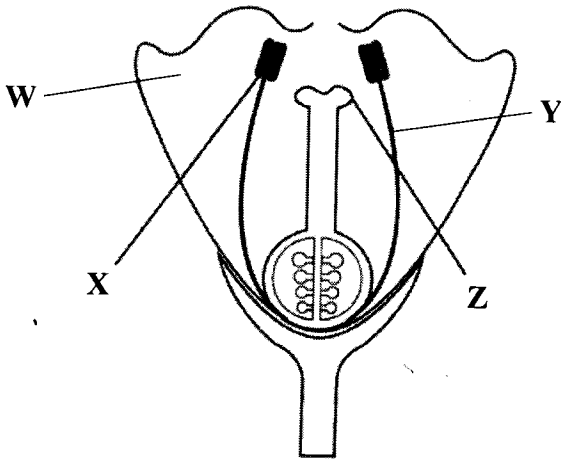
9. A component of air used for germination is also required for

- A. burning substances.
- B. preserving soft drinks.
- C. making proteins.
- D. making electric bulbs.



10. A mixture of sand, salt and husks can be separated by
- A. dissolving, filtering and winnowing.
 - B. winnowing, dissolving, filtering and evaporating.
 - C. dissolving, filtering and evaporating.
 - D. picking, sieving, dissolving and filtering.

11. The diagram below shows parts of a flower.



Pupils made the following statements about the parts labelled W, X, Y and Z.

- (i) W produces nectar.
- (ii) X produces pollen.
- (iii) Y transfers pollen.
- (iv) Z allows pollen tube to germinate.

Which two statements are correct?

- A. (i) and (ii).
- B. (ii) and (iv).
- C. (iii) and (iv).
- D. (i) and (iii).

12. The following features were observed on some plants:
- (i) deep roots.
 - (ii) broad leaves.
 - (iii) numerous stomata.
 - (iv) thorns.

Which two features are for plants found in dry areas?

- A. (i) and (ii).
- B. (ii) and (iii).
- C. (iii) and (iv).
- D. (i) and (iv).

13. Which one of the following is a field pest?

- A. Weevils.
- B. Aphids.
- C. White ants.
- D. Rodents.

14. Which one of the following is NOT a condition for germination?

- A. Soil.
- B. Oxygen.
- C. Moisture.
- D. Warmth.

15. The following are ways through which plants show interdependence EXCEPT

- A. sharing food.
- B. support.
- C. provision of shelter.
- D. provision of medicines.

16. Which one of the following characteristic is found in reptiles but NOT in birds?

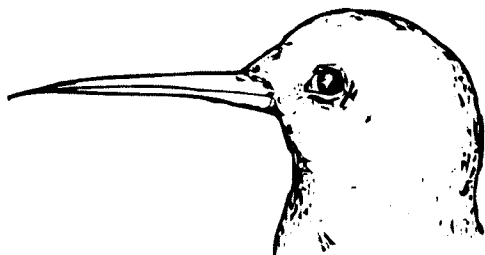
- A. A back bone.
- B. Scales.
- C. Lungs.
- D. Varying body temperature.

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17. Which one of the following methods of controlling livestock parasites will control **both** roundworms and ticks?

- A. Dipping.
- B. Rotational grazing.
- C. Spraying.
- D. Clearing vegetation.

18. The diagram below shows a bird's beak.



The bird is likely to be a

- A. grain eater.
- B. filter feeder.
- C. flesh eater.
- D. nectar feeder.

19. The following are some parts of the human digestive system:

- (i) oesophagus.
- (ii) stomach.
- (iii) small intestines.
- (iv) large intestines.

In which **two** parts does digestion of food take place?

- A. (i) and (ii).
- B. (ii) and (iii).
- C. (iii) and (iv).
- D. (i) and (iv).

20. Which one of the following parts of the breathing system warms the incoming air?

- A. Nose.
- B. Trachea.
- C. Diaphragm.
- D. Lung.

21. Which one of the following changes occurs in **both** adolescent boys and girls?

- A. Production of sex cells.
- B. Hips broaden.
- C. Voice breaks.
- D. Enlargement of breasts.

22. A human zygote is formed in the

- A. vagina.
- B. cervix.
- C. uterus.
- D. oviduct.

23. Which one of the following blood vessels carries blood from the left ventricle?

- A. Vena cava.
- B. Pulmonary artery.
- C. Aorta.
- D. Pulmonary vein.

24. Use of cover crops for conservation of soil will work in the same way as

- A. planting of trees.
- B. mulching.
- C. terracing.
- D. contour farming.

25. The following are observations made on fertilisers and manures:

- (i) nutrients are readily released.
- (ii) have nutrients in specific amounts.
- (iii) improves soil structure.
- (iv) benefits are long term.

Which **two** observations are for manure?

- A. (i) and (ii).
- B. (ii) and (iii).
- C. (iii) and (iv).
- D. (i) and (iv).

26. Which one of the following activities could cause a reduction in the number of animals in a river?

- A. Washing vehicles in the river.
- B. Dumping human waste into the river.
- C. Wild animals watering in the river.
- D. Cutting trees from the river bank.

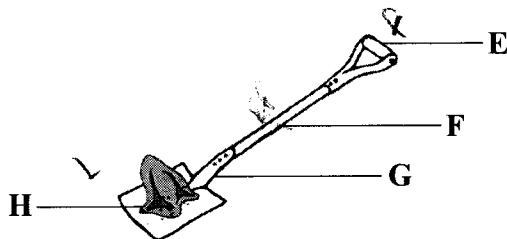
27. Which one of the following consists **only** of living components of the environment?

- A. soil, water, fern.
- B. water, wind, mushroom.
- C. mushroom, fern, moss.
- D. moss, wind, soil.

28. Which one of the following will **increase** the rate at which soil is carried away by running water?

- A. Planting sweet potatoes.
- B. Terracing the farm.
- C. Cultivating along the slope.
- D. Strip cropping.

29. The diagram below shows a simple machine with positions labelled E, F, G and H.



For the machine to make work **easier** the effort should be applied at point

- A. E.
- B. F.
- C. G.
- D. H.

30. The machine used to raise a flag makes work easier by

- A. changing the direction of the effort.
- B. making the load lighter.
- C. reducing the distance that effort moves.
- D. reducing the effort.

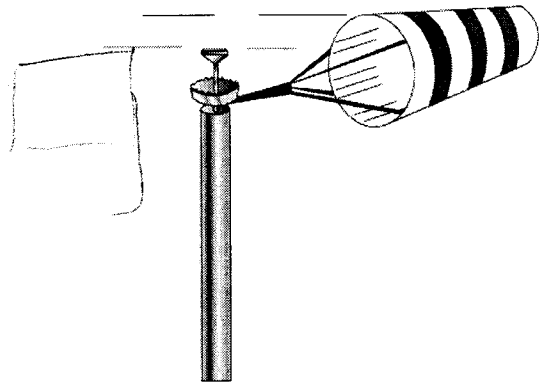
31. The following are some activities involving the use of simple machines:

- (i) A car moving on a road winding up a hill.
- (ii) A wheelbarrow in use.
- (iii) A person climbing up a staircase.
- (iv) Rolling an object down a hill.

Which two activities involve the use of inclined planes?

- A. (ii), (iv).
- B. (ii), (iii).
- C. (i), (iii).
- D. (i), (iv).

32. The diagram below represents a certain weather instrument.



The instrument can be used to show

- A. direction of wind only.
- B. speed and direction of wind.
- C. speed of wind only.
- D. direction and strength of wind.

33. Which one of the following need NOT to be considered when modelling the solar system using clay balls?

- A. Size of balls.
- B. Distance between balls.
- C. Mass of balls.
- D. Number of balls.

AIRAJAM

D 34. A meal made of irish potatoes, beans and rice should be made a balanced diet by

- A. removing one energy giving food.
- B. adding body building food.
- C. adding water.
- D. adding protective food.

A 35. A child with extreme loss of weight and a face that looks old will also have

- A. protruding stomach.
- B. swollen feet.
- C. sores on the corners of mouth.
- D. alert eyes.

A 36. A disease characterised by discharge of grey-yellow pus and burning sensation during urination is

- A. gonorrhoea.
- B. syphilis.
- C. chancroid.
- D. cholera.

A 37. Which one of the following myths and misconceptions about HIV/AIDS could **highly** increase the spread of the infection?

- A. Fat people have no infection.
- B. AIDS is a curse.
- C. One can get AIDS by shaking hands.
- D. AIDS is caused by witchcraft.

A 38. The following are signs and symptoms of certain diseases:

- (i) fever.
- (ii) severe headache.
- (iii) blood in stool and urine.
- (iv) severe dehydration.
- (v) vomiting.

Which **two** are for typhoid?

- A. (i) and (ii).
- B. (ii) and (iii).
- C. (iii) and (iv).
- D. (iv) and (v).

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B 39. In which one of the following practices is water recycled?

- A. Water used for cleaning vegetables is used to water flowers.
- B. Use of dams to collect water.
- C. Use of drip irrigation in cultivation.
- D. Use of treated industrial waste water.

A 40. Which one of the following is the **main** reason why lactating mothers should be fed on a diet rich in iron? To

- A. replace blood lost during birth.
- B. increase milk production.
- C. boost the child's immunity.
- D. prevent anaemia in the body.

A 41. Which one of the following is the **best** method of handling medicine bottles after use?

- A. Recycling.
- B. Reusing.
- C. Burying in a deep pit.
- D. Burning them immediately.

B 42. Which one of the following components of blood is attacked by HIV?

- A. Red blood cells.
- B. White blood cells.
- C. Platelets.
- D. Plasma.

D 43. Bilharzia and malaria diseases can **both** be prevented by

- A. wearing protective clothing.
- B. clearing bushes.
- C. pouring oil on stagnant water.
- D. draining stagnant water.

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A 44. Which one of the following is the **best** preventive measure against sexually transmitted infections for adolescent children?

- A. Abstain.
- B. Seeking medical treatment.
- C. Use of condoms.
- D. Faithfulness.

B 45. In investigating capillarity in soil, pupils were provided with water and different soils. Which **two** other materials are required?

- A. Funnels and drinking straws.
- B. Plastic bottles and funnels.
- C. Cotton wool and drinking straws.
- D. Plastic bottles and drinking straws.

B 46. The rate at which water drains in the soil is **mainly** determined by

- A. volume of the soil.
- B. size of the soil particles.
- C. humus content in the soil.
- D. air content in the soil.

B 47. Which one of the following pairs consists **only** of harmful animals?

- A. Dog and bee.
- B. White ants and mole.
- C. Snake and chameleon.
- D. Dog and mole.

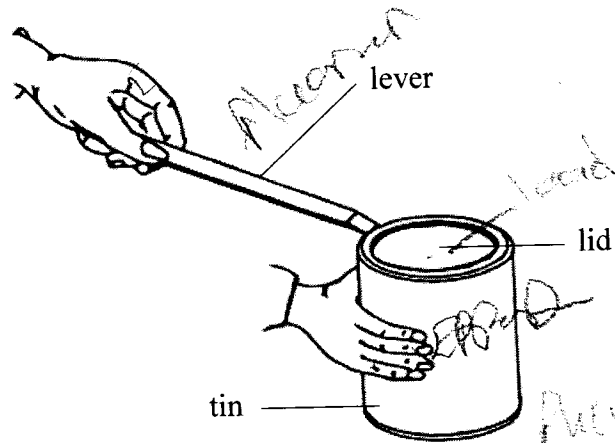
A087 48. Which one of the following animals moves by flying and hopping?

- A. Cockroach.
- B. Flea.
- C. Mite.
- D. Cricket.

A 49. The ability to do work is

- A. energy.
- B. force.
- C. effort.
- D. motion.

50. The diagram below represents a lever in use.



Which one of the following works in the same way as the lever illustrated above?

- A. Wheelbarrow.
- B. Spade.
- C. Claw hammer.
- D. Ladder.

